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10/530,701	09/15/2005	Einar Paul Edvardsen	3900.1000-000	6874
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HAMILTON, BROOK, SMITH & REYNOLDS, P.C.			EXAMINER	
530 VIRGINIA ROAD			LEE, ANDREW CHUNG CHEUNG	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/530,701	<b>Applicant(s)</b> EDWARDSEN ET AL.
	<b>Examiner</b> Andrew C. Lee	<b>Art Unit</b> 2619

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(o).

#### Status

- 1) Responsive to communication(s) filed on 07 April 2005.
- 2a) This action is FINAL.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-17 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date 4/07/2005
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_
- 5) Notice of Informal Patent Application  
 6) Other: \_\_\_\_\_

**DETAILED ACTION**

1. The Office Action is response to the Application #10530701 and preliminary amendment filed on 4/07/2005.

Claims 1 – 17 are hence entered replacing all prior versions as directed by applicant and presented for examination.

***Priority***

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Information Disclosure Statement***

3. The information disclosure statement (IDS) submitted on 4/07/2005 was filed, and the submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

***Claim Objections***

4. Claims 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 17 are objected to because of the following informalities:

Regarding claim 1, the claimed subject matter "said fixed network" in line 3 should be amended as "said fixed broadband access network", and "the fixed broadband network" should also be amended as "said fixed broadband access network" so as in consistency with previous claimed limitation. Appropriate correction is required.

Regarding claim 3, the term "realisable" in line 3 should be corrected as "realizable". Appropriate correction is required.

Regarding claim 4, the claimed subject matter "the public broadband network" in line 2 should be corrected as "the fixed broadband access network, and "said broadband network" in line 4 should also be corrected as "said fixed broadband access network" so as in consistency with previous claimed limitation. Appropriate correction is required.

Regarding claim 5, the claimed subject matter "said fixed network" in line 2 should be corrected as "said fixed broadband access network" so as in consistency with previous claimed limitation. Appropriate correction is required.

Regarding claim 6, the term "operable to" in line 5 is not a positive recitation. Appropriate correction is required.

Regarding claim 7, the term "broadband network" in line 1 should be amended as digital mobile broadband network. If "broadband network" is claimed, it is not clear it refers to mobile "broadband network" or fixed "broadband network". Appropriate correction is required.

Regarding claims 8, 9, 10, the term "broadband network" in line 1 has the same deficiencies as addressed in claim 7. Appropriate correction is required.

Regarding claim 11, the claimed subject matter "said device" in line 3 should be amended as "said home network device", "the fixed broadband network" in line 5 should be corrected as "the (or said) fixed broadband access network", "the fixed broadband network" in line 7 should be corrected as "the (or said) fixed broadband access network", and "the fixed network's" in line 11 should also be corrected as "the (or said) fixed

broadband access network's" so as in consistency with previous claimed limitation.

Appropriate correction is required.

Regarding claim 11, the phrase "adapted to" in line 9 is not a positive recitation.

Appropriate correction is required. According to "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility", pp 6-7, it states that language that suggests or marks optional but does not require steps to be performed or does not limit a claim to a particular structure does not limit the scope of a claim or claim limitation.

The following are examples of language that may raise a question as to the limiting effect of the language in a claim: (A) statements of intended use or field of use. (B) "adapted to" or "adapted for" clauses, etc.

Regarding claim 12, the phrase "adapted to" in line 2 has the same deficiencies as addressed previously in claim 11. It is not a positive recitation. Appropriate correction is required.

Regarding claim 13, the phrase "adapted to" in line 2 has the same deficiencies as addressed previously in claim 11. It is not a positive recitation. Appropriate correction is required.

Regarding claim 16, the phrase "adapted to" in line 2 has the same deficiencies as addressed previously in claim 11. It is not a positive recitation. Appropriate correction is required.

Regarding claim 15, the acronym "P2P" should be spelled out in full text at least once in the claim. It is not clear what it means? Does the "P2P" mean Point-to-Point or Person-to-Person? Clarification is required.

Regarding claim 17, the terms "use of a" should be deleted so the claimed preamble is in consistency with the other claims. Clarification is required.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 recites the limitation "the public part of the network" in lines 10-11. There is insufficient antecedent basis for this limitation in the claim.

Claim 3 recites the limitation "the portion of the physical realizable bandwidth" in lines 2-3, 'the portion of the bandwidth subscribed for" in lines 3-4, and "the bandwidth that ....in the network" in lines 4-6. There is insufficient antecedent basis for this limitation in the claim.

Claim 4 recites the limitation "the public broadband network" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 6 recites the limitation "the bandwidth of each wireless LAN" in line 7. There is insufficient antecedent basis for this limitation in the claim.

Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors. Regarding claim 6 in current claimed subject matter, One with ordinary skilled in the art could not distinguish

which portion of the claim is preamble and which portion of the claim is the main body.

The claim does not define clearly where the preamble, and where the claimed body start and end.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1 – 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chow et al. (US 7002995 B2) in view of Hagen (US 20020075844 A1).

Regarding **claim 1**, Chow et al. disclose method of providing a public, wireless broadband mobile network by upgrading a fixed, broadband access network ("integrates a wireless access system in the residence, SOHO, business or public environment through the use of a local broadband network" interpreted as providing a public, wireless broadband mobile network by upgrading a fixed, broadband access network; Fig. 1, Abstract) comprising installing home network means at subscriber premises of said fixed network ("broadband networking for Home" interpreted as installing home network means at subscriber premises; Fig. 1, col. 6, lines 15 – 23), the home network means comprising at least a wireless local area network (LAN) ("Enterprise Wireless Communications Service Platform (EWCSP)" interpreted as home network means comprising at least a wireless local area network (LAN); Fig. 1, col. 5, lines 60 – 66, col.

6, lines 23 – 30) and a broadband access line to the fixed broadband network ("wired line interfaces" and "broadband transport link" interpreted as a broadband access line to the fixed broadband network; Fig. 1, col. 6, lines 30 – 36), wherein the wireless LAN functions as an access medium for casual passing mobile terminals and for wireless terminals and devices of a fixed subscriber (Fig. 1, col. 6, lines 36 – 53).

Chow et al. do not disclose explicitly wherein the method comprising: dividing a bandwidth of the wireless LAN and the broadband access line of the fixed subscriber into respectively at least two separate channels, wherein a first channel is allocated to the fixed subscriber and a second channel allocated to the public part of the network used by the casual passing mobile terminals.

Hagen with the same field of endeavor teaches dividing a bandwidth of the wireless LAN and the broadband access line of the fixed subscriber into respectively at least two separate channels, wherein a first channel is allocated to the fixed subscriber and a second channel allocated to the public part of the network used by the casual passing mobile terminals ("bandwidth usage and allocation by subscribers and private network client" interpreted as dividing a bandwidth of the wireless LAN and the broadband access line of the fixed subscriber into respectively at least two separate channels; paragraphs [0097], [0099], [0104]).

At time the invention was made it would have been obvious to a person of ordinary skill in the art to modify the teachings of Chow et al. to include the features of dividing a bandwidth of the wireless LAN and the broadband access line of the fixed subscriber into respectively at least two separate channels, wherein a first channel is

allocated to the fixed subscriber and a second channel allocated to the public part of the network used by the casual passing mobile terminals as taught by Hagen. One of ordinary skill in the art would be motivated to do so for effectively integrating diverse private and public networks to provide ubiquitous, network access at broadband data rates using existing infrastructure (as suggested by Hagen, see paragraph [0010]).

Regarding claims 2, 7, 12, Chow et al. do not disclose method, digital mobile broadband network, home network device according to claimed the resource management system and characterized in dynamically dimensioning the at least two channels dependent on the fixed subscriber's instantaneous traffic in the wireless LAN and over the broadband access line, wherein a remaining bandwidth is made available for passing mobile terminals.

Hagen with the same field of endeavor teaches the resource management system and characterized in dynamically dimensioning the at least two channels dependent on the fixed subscriber's instantaneous traffic in the wireless LAN and over the broadband access line, wherein a remaining bandwidth is made available for passing mobile terminals ("bandwidth allocations at any given time will be changing dynamically"; paragraphs [0104], [0112]).

At time the invention was made it would have been obvious to a person of ordinary skill in the art to modify the teachings of Chow et al. to include the features of method according to claimed the resource management system and characterized in dynamically dimensioning the at least two channels dependent on the fixed subscriber's instantaneous traffic in the wireless LAN and over the broadband access line, wherein a

remaining bandwidth is made available for passing mobile terminals as taught by Hagen. One of ordinary skill in the art would be motivated to do so for effectively integrating diverse private and public networks to provide ubiquitous, network access at broadband data rates using existing infrastructure (as suggested by Hagen, see paragraph [0010]).

Regarding claims 3, 8, Chow et al. disclose method, digital mobile broadband network according to claimed characterized in that the remaining bandwidth/second channel may include the portion of the physical realisable bandwidth not subscribed for by the fixed subscribers, the portion of the bandwidth subscribed for, but instantaneously unused by the fixed subscriber and the bandwidth that may be released due to priority mechanisms implemented in the network.

Hagen with the same field of endeavor teaches claimed characterized in that the remaining bandwidth/second channel may include the portion of the physical realisable bandwidth not subscribed for by the fixed subscribers, the portion of the bandwidth subscribed for, but instantaneously unused by the fixed subscriber and the bandwidth that may be released due to priority mechanisms implemented in the network (paragraphs [0104]).

At time the invention was made it would have been obvious to a person of ordinary skill in the art to modify the teachings of Chow et al. to include the features of claimed characterized in that the remaining bandwidth/second channel may include the portion of the physical realisable bandwidth not subscribed for by the fixed subscribers, the portion of the bandwidth subscribed for, but instantaneously unused by the fixed

subscriber and the bandwidth that may be released due to priority mechanisms implemented in the network as taught by Hagen. One of ordinary skill in the art would be motivated to do so for effectively integrating diverse private and public networks to provide ubiquitous, network access at broadband data rates using existing infrastructure (as suggested by Hagen, see paragraph [0010]).

Regarding claims 4, 9, Chow et al. disclose method, digital mobile broadband network according to claimed characterized in that the home network means and the public broadband network perform security and authentication functions securing the fixed subscriber and the passing mobile terminals against tapping and illegal use of said broadband network ("predetermined security privileges...", and Authentication information" interpreted as the home network means and the public broadband network perform security and authentication functions; col. 7, lines 10 – 22, col. 9, lines 47 – 49).

Regarding claims 5, 10, Chow et al. disclose method, digital mobile broadband network according to claimed characterized in providing protocols in the home network means and in said fixed network for performing mobility, handover and roaming procedures ("support personal and private mobility", and "Roaming"; Fig. 6, col. 12, lines 19 – 28, col. 15, lines 48 – 56).

Regarding **claim 6**, Chow et al. disclose digital mobile broadband network providing public mobile or nomadic broadband services based on an existing fixed, broadband access network with a number of subscribers ("integrates a wireless access system in the residence, SOHO, business or public environment through the use of a local broadband network" interpreted as providing a public, wireless broadband mobile

network by upgrading a fixed, broadband access network; Fig. 1, Abstract) possessing a home network means comprising at least a wireless local area network (LAN) and a broadband access line to a public, fixed broadband network ("broadband networking for Home" interpreted as a home network means at subscriber premises; Fig. 1, col. 6, lines 15 – 23; "Enterprise Wireless Communications Service Platform (EWCSP)" interpreted as home network means comprising at least a wireless local area network (LAN); Fig. 1, col. 5, lines 60 – 66, col. 6, lines 23 – 30 ; and "wired line interfaces" and "broadband transport link" interpreted as a broadband access line to the fixed broadband network; Fig. 1, col. 6, lines 30 – 36), wherein the wireless LAN is operable to function as an access medium for casual passing mobile terminals as well as for local wireless terminals of the fixed subscriber (Fig. 1, col. 6, lines 36 – 53), and

Chow et al. do not disclose wherein the bandwidth of each wireless LAN and broadband access line is divided into at least two separate channels, a first channel allocated to the fixed subscriber and a second channel allocated to a public part of the network available for the casual passing mobile terminals.

Hagen with the same field of endeavor teaches wherein the bandwidth of each wireless LAN and broadband access line is divided into at least two separate channels, a first channel allocated to the fixed subscriber and a second channel allocated to a public part of the network available for the casual passing mobile terminals ("bandwidth usage and allocation by subscribers and private network client" interpreted as dividing a bandwidth of the wireless LAN and the broadband access line of the fixed subscriber into respectively at least two separate channels; paragraphs [0097], [0099], [0104]).

At time the invention was made it would have been obvious to a person of ordinary skill in the art to modify the teachings of Chow et al. to include the features of wherein the bandwidth of each wireless LAN and broadband access line is divided into at least two separate channels, a first channel allocated to the fixed subscriber and a second channel allocated to a public part of the network available for the casual passing mobile terminals as taught by Hagen. One of ordinary skill in the art would be motivated to do so for effectively integrating diverse private and public networks to provide ubiquitous, network access at broadband data rates using existing infrastructure (as suggested by Hagen, see paragraph [0010]).

Regarding **claim 11**, Chow et al. disclose home network device for separating traffic from a fixed subscriber of a fixed, broadband access network and traffic from casual passing mobile terminals ("integrates a wireless access system in the residence, SOHO, business or public environment through the use of a local broadband network" interpreted as providing a public, wireless broadband mobile network by upgrading a fixed, broadband access network; Fig. 1, Abstract) wherein said device comprising: A wireless LAN providing local, wireless broadband communication for the subscriber of the fixed, broadband network and broadband communication for casual passing mobile terminals ("Enterprise Wireless Communications Service Platform (EWCSP)" interpreted as a wireless local area network (LAN); Fig. 1, col. 5, lines 60 – 66, col. 6, lines 23 – 30 ; and "wired line interfaces" and "broadband transport link" interpreted as a broadband access line to the fixed broadband network; Fig. 1, col. 6, lines 30 – 36 ); a broadband access line connected to the fixed broadband network

(“wired line interfaces” and “broadband transport link” interpreted as a broadband access line to the fixed broadband network; Fig. 1, col. 6, lines 30 – 36); appropriate traffic and control functions comprising a resource management system and multiplexer means (“The system controller, the Network Server Platform” interpreted as appropriate traffic and control functions comprising a resource management system and multiplexer means; Fig. 1, col. 6, lines 58 – 67, col. 7, lines 1 – 8).

Chow et al. do not disclose appropriate traffic and control functions comprising a resource management system and multiplexer means adapted to divide a physical available bandwidth of the wireless LAN and the broadband access line into at least two channels, a first channel to be used by the fixed network's subscriber and a second public channel available for the casual passing mobile terminals.

Hagen with the same field of endeavor teaches appropriate traffic and control functions comprising a resource management system and multiplexer means adapted to divide a physical available bandwidth of the wireless LAN and the broadband access line into at least two channels, a first channel to be used by the fixed network's subscriber and a second public channel available for the casual passing mobile terminals (“bandwidth usage and allocation by subscribers and private network client” interpreted as appropriate traffic and control functions comprising a resource management system and multiplexer means to divide a physical available bandwidth of the wireless LAN and the broadband access line into at least two channels; paragraphs [0097], [0099], [0104]).

At time the invention was made it would have been obvious to a person of ordinary skill in the art to modify the teachings of Chow et al. to include the features of

appropriate traffic and control functions comprising a resource management system and multiplexer means to divide a physical available bandwidth of the wireless LAN and the broadband access line into at least two channels, a first channel to be used by the fixed network's subscriber and a second public channel available for the casual passing mobile terminals as taught by Hagen. One of ordinary skill in the art would be motivated to do so for effectively integrating diverse private and public networks to provide ubiquitous, network access at broadband data rates using existing infrastructure (as suggested by Hagen, see paragraph [0010]).

Regarding claim 13, Chow et al. disclose home network device according to claimed comprising switching/routing means adapted to pass traffic to and from the broadband access network and the different wireless terminals located within the reach of the wireless LAN (Fig. 1, col. 6, lines 23 – 36).

Regarding claim 14, Chow et al. disclose home network device according to claimed comprising protocol means for seamless mobility and handover procedures maintaining the connection to the fixed broadband access network for a mobile terminal passing subscriber wireless LANs ("support personal and private mobility", and "Roaming"; Fig. 6, col. 12, lines 19 – 28, col. 15, lines 48 – 56).

Regarding claim 15, Chow et al. disclose home network device according to claimed comprising protocol means for roaming between different fixed, network operators, P2P/Ad Hoc operators and individual subscriber LANs ("TIA/EIA-136", "EDGE/GPRS", and "IEEE 802.11b" interpreted as protocol means for roaming between different fixed, network operators; Fig. 1, col. 10, lines 19 – 44, col. 12, lines 19 – 50).

Regarding claim 16, Chow et al. disclose home network device according to claimed comprising function means adapted to support the broadband network's management and charging requirements ("Operation, Administration and Maintenance", and the user is billed according to the normal wired local telephone subscription plan, ....., and calls are billed according to user's cellular calling plan" interpreted as function means adapted to support the broadband network's management and charging requirements; col. 8, lines 57 – 67, col. 9, lines 1, col. 10, lines 30 – 40).

Regarding claim 17, Chow et al. disclose use of a home network device according to claimed for providing local wireless communication for the fixed subscriber and mobile broadband services to casual passing wireless terminals (col. 6, lines 28 – 53).

***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a) McIntosh et al. (US 20030139180 A1).
- b) Immonen et al. (US 7006472 B1).
- c) Vikberg et al. (US 6925074 B1).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C. Lee whose telephone number is (571)272-3131. The examiner can normally be reached on Monday through Friday from 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on (571) 272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew C Lee/  
Examiner, Art Unit 2619  
<7/24/2008>

/Wing F. Chan/  
Supervisory Patent Examiner, Art Unit 2619  
7/30/08